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### NOTICE OF ALLOWANCE AND FEE(S) DUE

25889

7590

12/02/2009

COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576 EXAMINER

WU, IVES J

ART UNIT PAPER NUMBER

DATE MAILED: 12/02/2009

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/574,091	05/22/2006	Paul Niehues	NIEHUES ET AL-1 PCT	9793	

TITLE OF INVENTION: METHOD FOR REMOVING AMMONIA AND DUST FROM A WASTE GAS THAT RESULTS DURING THE PRODUCTION

OF FERTILIZERS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/02/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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#### Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where n

appropriate. All further ndicated unless correcte naintenance fee notifica	correspondence including below or directed oth tions.	ng the Patent, advance on herwise in Block 1, by (a	ders and notification a) specifying a new co	of m orresp	aintenance fees woondence address;	ill be and/or	mailed to the current of (b) indicating a separ	correspondence address as ate "FEE ADDRESS" for
	ENCE ADDRESS (Note: Use Bl		Fee(s papei	s) Transmittal. Thi rs. Each additiona	s certif I paper	icate cannot be used fo	domestic mailings of the r any other accompanying t or formal drawing, must	
25889 COLLARD &	7590 12/02 ROE, P.C.	/2009			Cer	tificate	of Mailing or Transn	nission deposited with the United class mail in an envelope
1077 NORTHEI ROSLYN, NY 1	RN BOULEVARD 1576			State addre trans	s Postal Service w essed to the Mail mitted to the USP	rith suf Stop ΓΟ (57	ficient postage for first ISSUE FEE address a 1) 273-2885, on the da	class mail in an envelope above, or being facsimile te indicated below.
								(Depositor's name)
								(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVEN	ГOR		ATTO	RNEY DOCKET NO.	CONFIRMATION NO.
10/574,091	05/22/2006		Paul Niehues			NIEH	UES ET AL-1 PCT	9793
TTLE OF INVENTION OF FERTILIZERS	: METHOD FOR REMO	OVING AMMONIA ANI	D DUST FROM A WA	ASTE	GAS THAT RES	ULTS :	DURING THE PRODU	JCTION
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE D	UE	PREV. PAID ISSUE	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300		\$0		\$1810	03/02/2010
EXAM	INER	ART UNIT	CLASS-SUBCLASS					
WU, I	VES J	1797	095-199000					
. Change of correspondence address or indication of "Fee Address" (37 :FR 1.363).  Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.  "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			(1) the names of u or agents OR, alter (2) the name of a s registered attorney	e of a single firm (having as a member a ttorney or agent) and the names of up to patent attorneys or agents. If no name is				
PLEASE NOTE: Unl recordation as set fort (A) NAME OF ASSIG	ess an assignee is ident h in 37 CFR 3.11. Comp GNEE	oletion of this form is NO	data will appear on th T a substitute for filing (B) RESIDENCE: (C	ne pa g an a	tent. If an assign ssignment. and STATE OR C	OUNT	TRY)	cument has been filed for
lease check the appropr	iate assignee category or	categories (will not be pr	inted on the patent):	_	Individual 🖵 Co	orporati	on or other private grou	p entity Government
<ul><li>a. The following fee(s):</li><li>Issue Fee</li></ul>	are submitted:	4t	<ul> <li>Payment of Fee(s): (</li> <li>A check is enclosed</li> </ul>		se first reapply ar	y prev	iously paid issue fee sl	hown above)
☐ Publication Fee (No small entity discount permitted)			Payment by credit card. Form PTO-2038 is attached.					
Advance Order - # of Copies			The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number (enclose an extra copy of this form					iciency, or credit any extra copy of this form).
_ ` .	tus (from status indicates s SMALL ENTITY statu		☐ b. Applicant is no	long	er claiming SMAI	LL ENT	FITY status. See 37 CF	R 1.27(g)(2).
NOTE: The Issue Fee and terest as shown by the i	d Publication Fee (if req records of the United Sta	uired) will not be accepted tes Patent and Trademark	d from anyone other the Office.	an th	e applicant; a regi	stered a	attorney or agent; or the	assignee or other party in
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n application. Confident ubmitting the completed his form and/or suggesti	tiality is governed by 35 I application form to the ons for reducing this bu irginia 22313-1450. DC	U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the	1.14. This collection is depending upon the is Chief Information O	s esti ndivi fficer	mated to take 12 r dual case. Any co TLS Patent and	ninutes mment Traden	to complete, including s on the amount of tim park Office, U.S. Depar	by the USPTO to process) gathering, preparing, and e you require to complete tment of Commerce, P.O. or Patents, P.O. Box 1450,

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10/574,091	05/22/2006	Paul Niehues	NIEHUES ET AL-1 PCT	9793	
25889 7	590 12/02/2009		EXAM	INER	
COLLARD & R	OE, P.C.	WU, IVES J			
1077 NORTHERN BOULEVARD			ART UNIT	PAPER NUMBER	
ROSLYN, NY 11	576		1797		
			DATE MAILED: 12/02/2009		

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 737 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 737 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	A 11 41	A D 1	
	Application No.	Applicant(s)	
Notice of Allowability	10/574,091	NIEHUES ET AL.	
Notice of Allowability	Examiner	Art Unit	
	IVES WU	1797	
The MAILING DATE of this communication appeal All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIOF of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate commits GHTS. This application is:	n this application. If not included unication will be mailed in due cours	se. <b>THIS</b>
1. $\boxtimes$ This communication is responsive to $9/11/2009$ .			
2. ☑ The allowed claim(s) is/are <u>1-5</u> .			
<ul> <li>3.  Acknowledgment is made of a claim for foreign priority ur</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> </ul>	been received.		
3. Copies of the certified copies of the priority do	cuments have been receive	d in this national stage application f	rom the
International Bureau (PCT Rule 17.2(a)).			
* Certified copies not received:			
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.  4.   A SUBSTITUTE OATH OR DECLARATION must be subm	IENT of this application.		
INFORMAL PATENT APPLICATION (PTO-152) which give			E OF
5. $\square$ CORRECTED DRAWINGS ( as "replacement sheets") mus	et be submitted.		
(a) $\square$ including changes required by the Notice of Draftspers	on's Patent Drawing Revie	w ( PTO-948) attached	
1) ☐ hereto or 2) ☐ to Paper No./Mail Date			
(b) ☐ including changes required by the attached Examiner's Paper No./Mail Date			
Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in the			x) of
6. DEPOSIT OF and/or INFORMATION about the depo- attached Examiner's comment regarding REQUIREMENT			:he
Attachment(s)	5 □ Notice of Ir	Sormal Datant Application	
<ol> <li>Notice of References Cited (PTO-892)</li> <li>D Notice of Draftperson's Patent Drawing Review (PTO-948)</li> </ol>		formal Patent Application	
<ol> <li>Information Disclosure Statements (PTO/SB/08),</li> </ol>	Paper No.	ummary (PTO-413), /Mail Date Amendment/Comment	
Paper No./Mail Date  4.  Examiner's Comment Regarding Requirement for Deposit		Statement of Reasons for Allowand	ce
of Biological Material	 9.		

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#### **DETAILED ACTION**

(1). Applicants' Amendments and Remarks filed on 9/11/2009 have been received. The 112 2<sup>nd</sup> rejections of claims 1-5 in prior Office Action dated 7/28/2009 is withdrawn in view of the present Amendments.

## Allowable Subject Matter

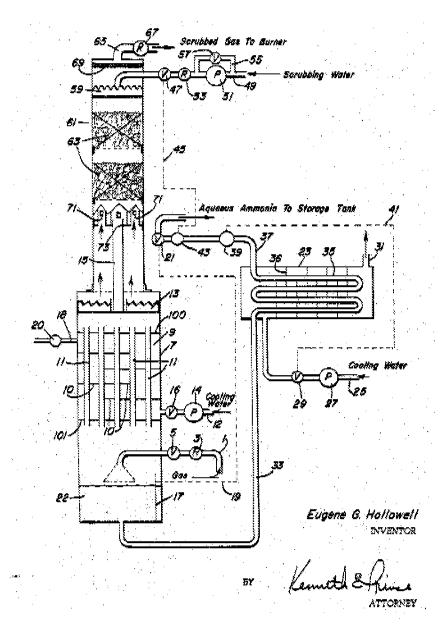
(2). Claims 1-5 are allowed.

# Reasons for Allowance

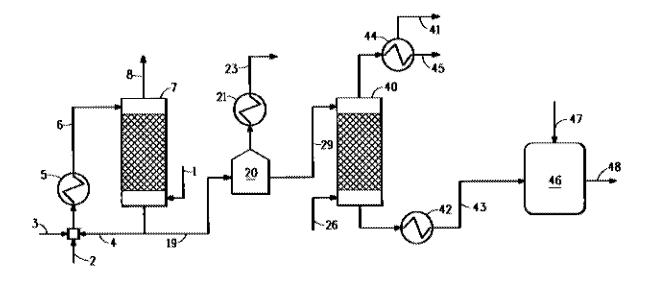
(3). The following is an examiner's statement of reasons for allowance:

The instant Application is allowable in view of the following comments.

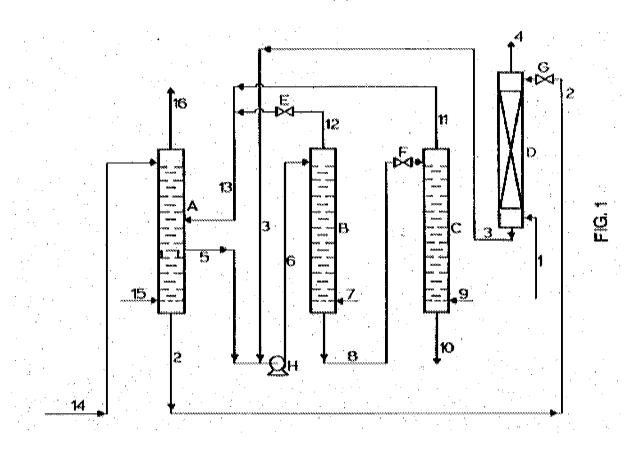
Closest prior art Hollowell (US 3344585) does not teach cooling gas in 2<sup>nd</sup> washer (bottom washer) as well demister in the bottom washer. It is shown in the Figure below.



Prior art Blackwell et al (US 7258848B1) – Figure 3, Douwes (US 4652678) – Figure 1 do not teach the fine washer area delimited by mist collector on the top and by a liquid-impermeable partition bottom at the bottom and sprayed onto at least one mist collector in the scrubber.

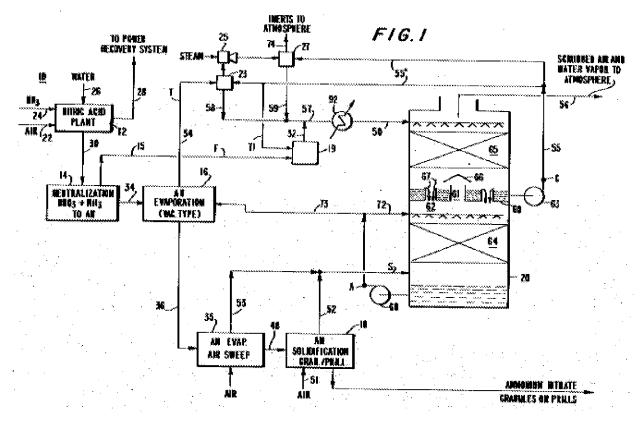


F1G. 3

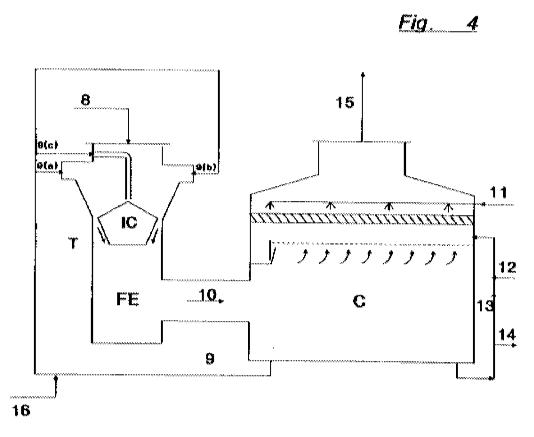


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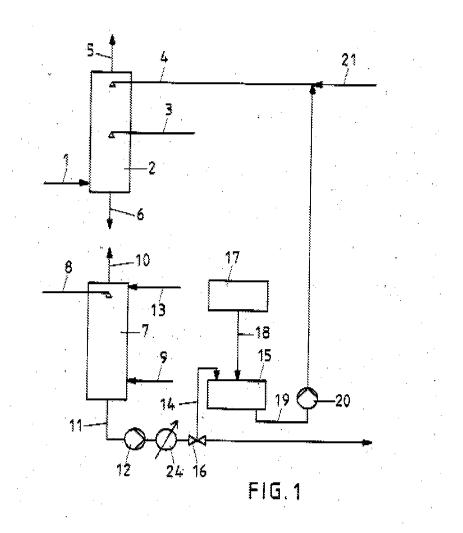
Prior arts Kaupas et al (US 3985523) – Figure 1, Ognibeni et al (EP 514902A1) – Figure 4 do not teach the  $2^{nd}$  washer.



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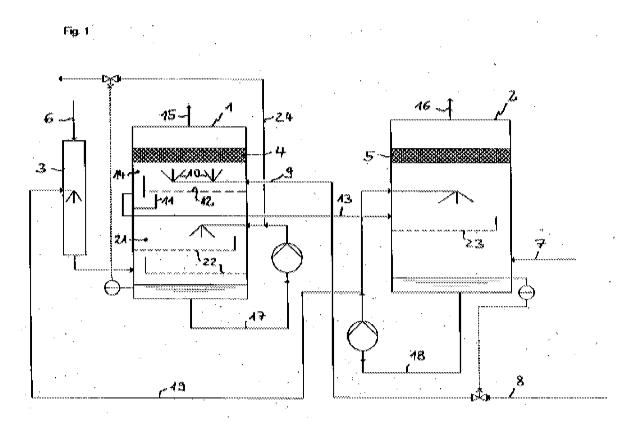


Prior art Diemer et al (US 4559210) – Figure 1 does not teach demister and the additional water for demist, fine washer section delimited by demist on the top and a liquid-impermeable partition plate at the bottom.



Because there are significant structural differences among these prior arts, lack of proper motivation to combine them to reach the Applicants' invention for the obvious reasons.

Applicants' independent claim 1 recites: the waste gas is introduced into a 1st washer, and a cooling gas is introduced into a 2<sup>nd</sup> washer, and additional water is introduced into the 1<sup>st</sup> washer and an aqueous solution is introduced into 2<sup>nd</sup> washer wherein both the waste gas and the cooling gas pass through at least one mist collector before exiting from the respective 1<sup>st</sup> and 2<sup>nd</sup> washer, in each instance, wherein the additional water is 1<sup>st</sup> introduced into a fine-washing area of the 1<sup>st</sup> washer, delimited by the mist collector on the top and by a liquid-impermeable partition bottom at the bottom, and sprayed onto the at least one mist collector, and the aqueous solution that forms in the fine-washing area is subsequently passed into the 2<sup>nd</sup> washer. This claim is further illustrated in the following Figure.



1: 1<sup>st</sup> washer; 2: 2<sup>nd</sup> washer; 3: pre-purification stage; 4,5: demister; 6: waste gas (ammonia dust); 7: cooling gas; 8,9: additional water; 10: spray head; 11: discharge; 12: partition bottom (liquid impermeable, gas permeable); 14: fine washing area; 16: purified cool gas; 17,18: sump circulation system; 22,23: screen bottom; 24: 60% urea of aqueous solution.

Accordingly, it is concluded that claims 1-5 are patentable in light of above comments, and passed to issue as the date of this Allowability Notice.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to IVES WU whose telephone number is (571)272-4245. The examiner can normally be reached on 8:00 - 5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Examiner: Ives Wu Art Unit: 1797

Date: November 24, 2009

/Duane Smith/ Supervisory Patent Examiner, Art Unit 1797